by Lt. Ben Hewlett

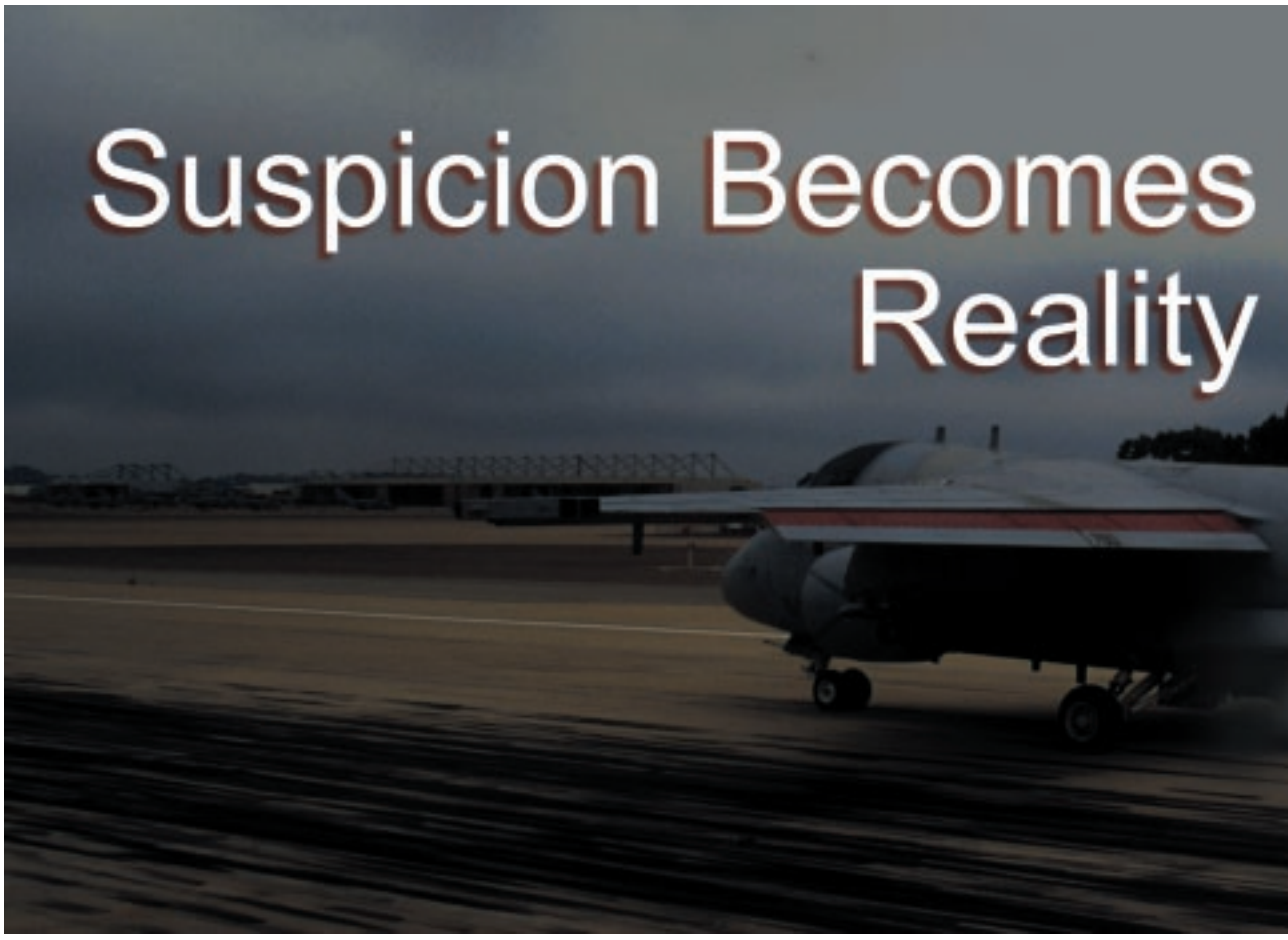
Suspicion Becomes Reality

We were in the middle of our work-up schedule. With an at-sea period and Fallon under my belt, I was back doing FCLPs in the S-3, preparing for FleetEx. The typical, night-bounce period was over to El Centro and then back to North Island. As usual, when we got closer to deployment, the FCLP crunch began, and we started filling the jets with pilots, rather than the usual pilot-NFO combo.

After a quick hop to El Centro in the back of the Hoover, I got out and waited my turn in the LSO shack, watching my compatriots bounce around the pattern. Finally, it was my turn to hop in. I was supposed to "stuff," bounce and head back to North Island. The right-seater (a pilot) climbed out and waited for his ride in the LSO shack. The previous pilot hopped over into the right seat. I promptly filled the left seat after making sure the back seats were still secured.

The dominoes began to fall. Rushing through the takeoff checks didn't help, because tower told us to hold short—the pattern was full of Hoovers and Hornets. We decided to keep the APU running while we sat on the hot tarmac behind the hold-short line, promising ourselves that we wouldn't forget to shut it down before takeoff. When we got clearance for an immediate takeoff, we hurried on to the runway to take off in the small window the tower had cleared for us. We ran up the engines to MRT, rolled down the runway and lifted off. At rotation speed, the LSO reported that he had heard a loud thump as we passed the LSO shack. He thought it sounded like a blown tire. We turned downwind with the gear down and asked tower to elevate so we could "delta easy" and sort out the options.

The pilot in the right seat and I began to discuss some solutions to the problem. I hadn't noticed anything unusual about the aircraft as



we rolled down the runway. Should we set it down right there in El Centro or fly dirty back to North Island? We opted for the latter, told the LSO and tower, then headed west to North Island as fast as a dirty S-3 could fly.

Shortly after leaving El Centro's airspace, we realized that the APU was still running. Oops! We'd missed it and had taken off without completing the takeoff checks. The thump was probably the APU exhaust being ingested into the No. 1 engine. Without a visual confirmation, we decided to stick with the game plan and take an arrested landing back at North Island for a possible blown tire.

The flight back was very slow, and we had time to discuss what had happened. The pilot in the right seat broke out the PCL, and we went through the arrested-landing checklist, discussing contingencies. We requested a visual straight-in to runway 36 for an arrested landing and dropped our tailhook. Tower told us we were cleared to land, and crash crews were standing by. As we turned final, I could see the blinking dots of the arresting gear on both sides of the runway. I aimed to set the jet down no more than 1,000 feet in front of the gear. Because of the short final, I found myself high and fast as I approached the runway. On touchdown, I went to idle, popped the boards, and waited for the hook to catch as the jet rolled toward the arresting gear.

And I waited.

And waited. Hook skip! The jet was rolling out normally. I knew instantly I didn't have a blown tire, so I applied the brakes to begin a normal landing rollout. I got an anti-skid failure, with an associated master-caution light flashing in my face. The brakes didn't respond at all. The pilot in the right seat confirmed that the anti-skid light was illuminated, and I reached down to switch the three-position brake switch out of "anti-skid"

continued on page 30

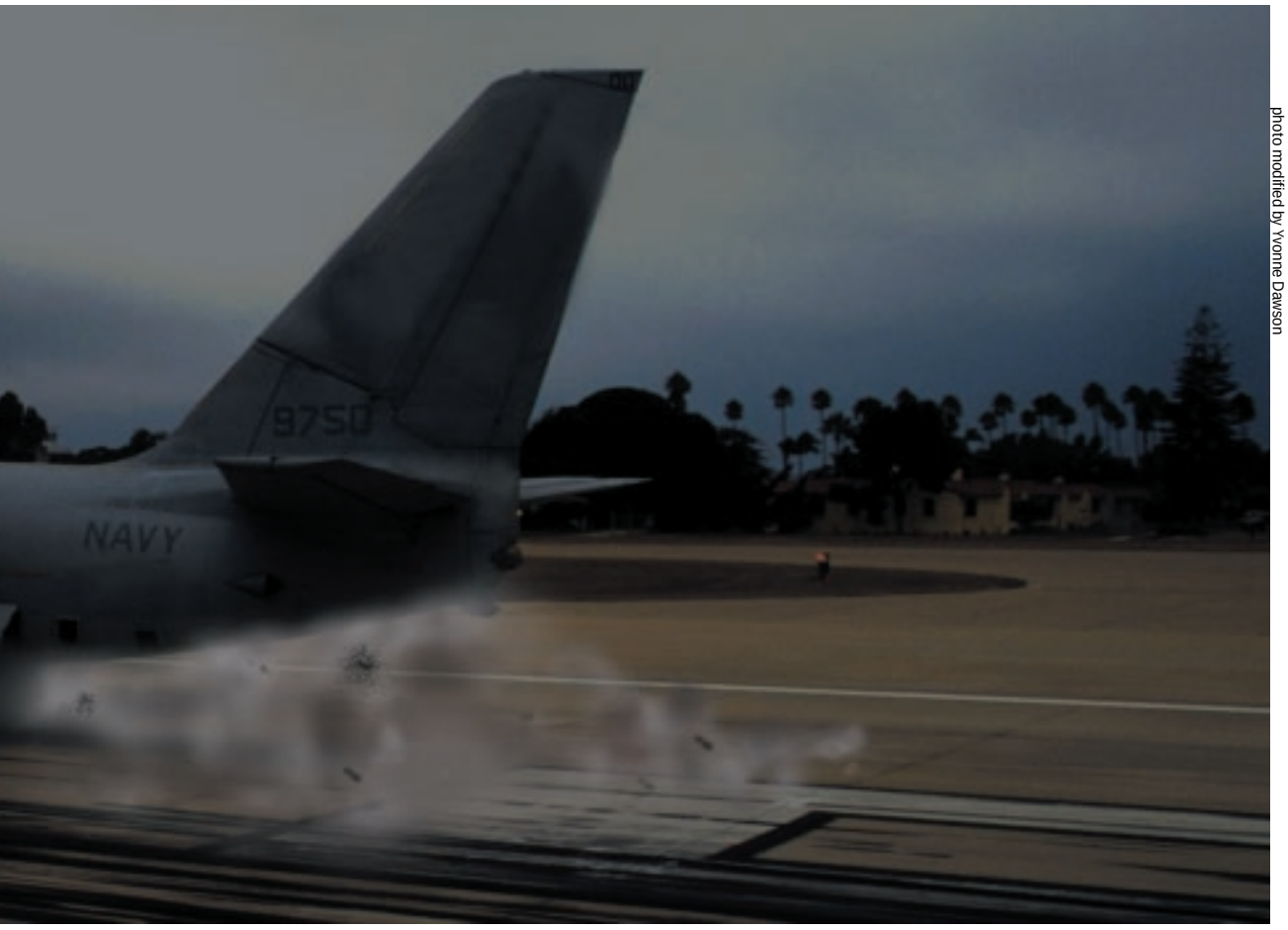


photo modified by Yvonne Dawson

"Suspicion Becomes Reality" continued from page 20

and into "normal brake." However, I inadvertently pushed the switch all the way into the emergency-brake position. The brake-selector valve pulsed as it switched to emergency brakes, and I immediately heard a loud thump on the right side of the jet. The aircraft began to pull right. Now I did have a blown tire, and as the aircraft slowed through 100 knots, the pull to the right required almost a full boot of left rudder to keep the aircraft on the runway. With less and less wind over the rudder, the aircraft neared the right edge of the runway, and I could see the long-field, arresting-gear battery approaching the nose of the aircraft.

The thought of exiting the aircraft through the roof crossed my mind. With full, left-rudder, I couldn't engage nosewheel steering. Faced with hitting the arresting battery, I gave the aircraft one more hard kick of the left-rudder pedal. The aircraft turned hard to the left. The right wingtip narrowly missed the runway and the long-field arresting wire. The bird crossed back over to the left side of the runway at about a 30-degree angle, and the hook engaged the long field gear, pulling us to a stop after we left the runway and came to rest in the dirt.

The next few hours were filled with blood tests and personal histories. The resilient S-3 engines survived the ordeal without FOD damage, and the overall damage to the aircraft fell below the Class-Charlie cutoff. The realization of how close we'd come to wrecking the jet and killing ourselves set in during the next few days.

After recounting the story to the ready room, I took several points away from the ordeal. When you have a non-standard crew—especially when a pilot is in the seat where an NFO usually sits—the risks have increased, and you must be on your best game.

Live and die by your checklists. Some of them, done incorrectly, can kill you, and the takeoff checklist is one of them.

When other aircraft are nearby and when time permits, always get a visual inspection from another aircraft. Doing that would have prevented me from losing all that blood at the hands of the flight doc late one night. It also would have kept me from getting behind on my FCLP requirements.

Know your aircraft's history. This aircraft had had several anti-skid failures in the weeks before my flight.

Finally, once you've made a decision, follow through with it. Even though we had decided that the aircraft probably didn't have a blown tire, we elected to leave the gear down and take an arrested landing anyway because of the uncertainty. We completed the arrested-landing checklist, but we didn't execute the "landing with a main wheel blown" emergency procedure. The first step of this procedure is "brake selector switch — anti-skid off."

A lot of things could have prevented this wild ride. They boil down to good crew coordination and good decisions in the cockpit. I'll fly smarter tomorrow.

Lt. Hewlett is an LSO with VS-33

How to order sets of two laminated, wallet-sized cards that introduce Operational Risk Management.

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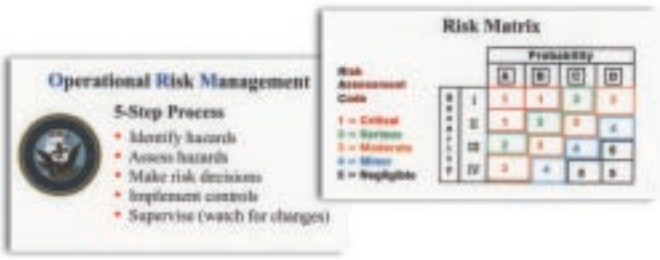

The back of the card on the left lists the four principles of ORM. The back of the card on the right defines "probability" and "severity."